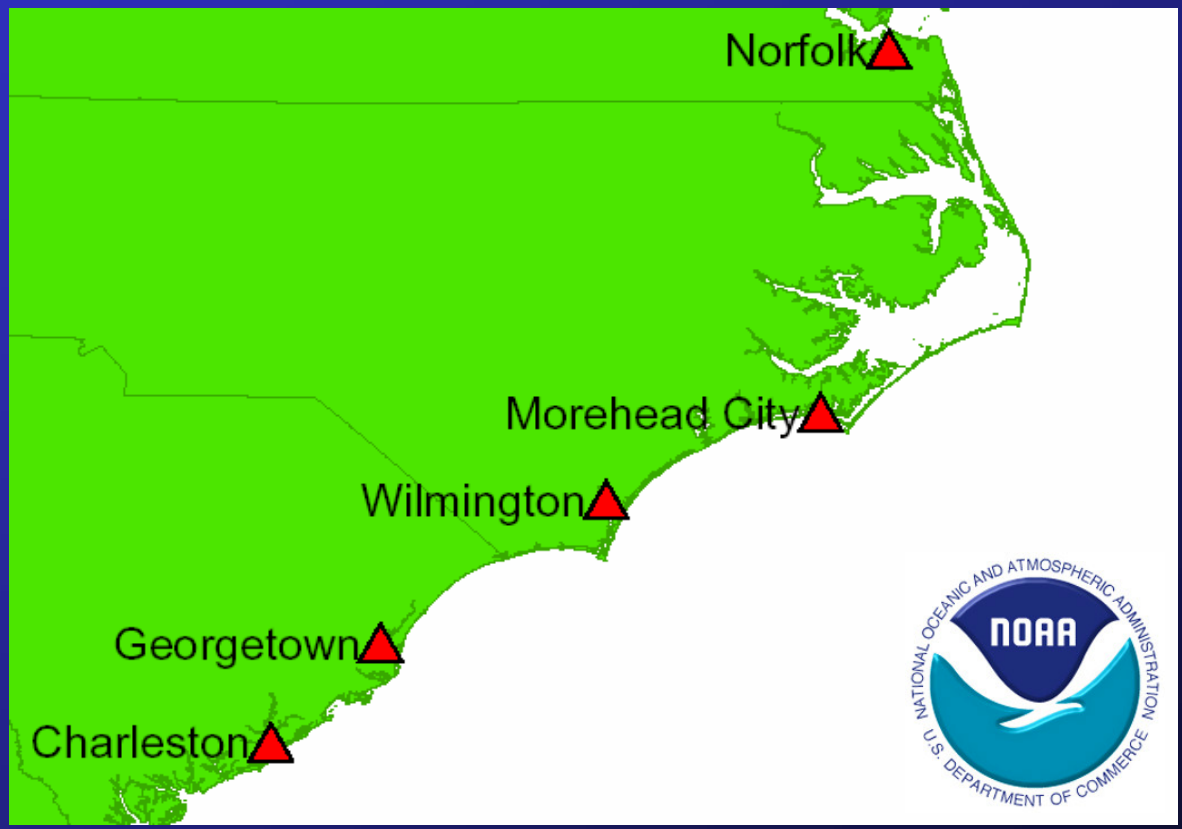
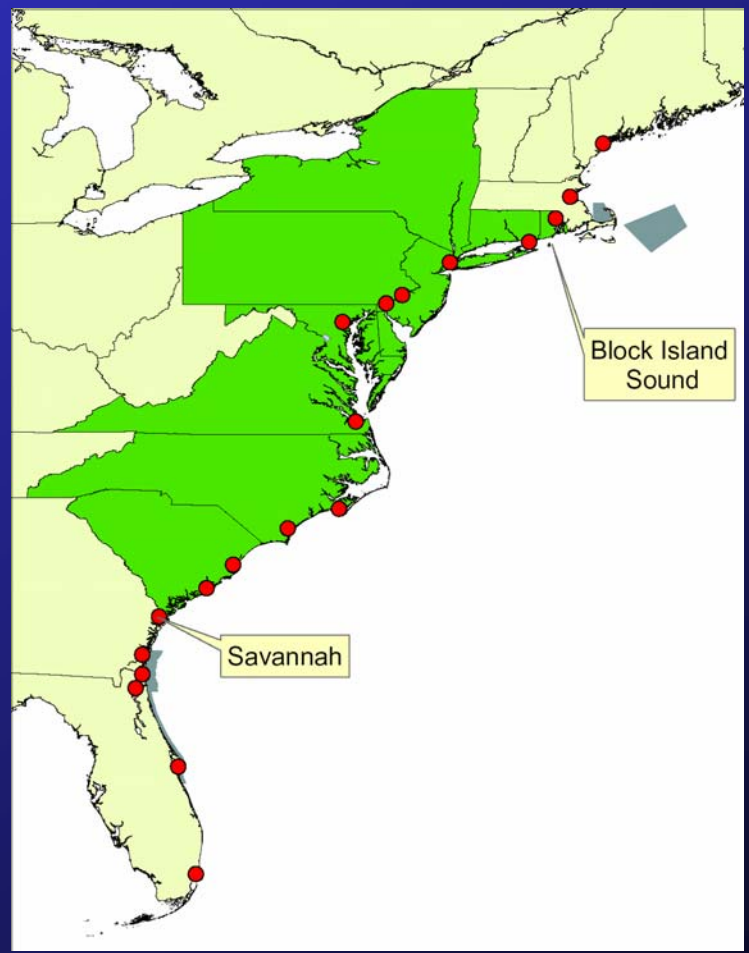
Morehead City – Right Whale Ship Strike Reduction Measures

Barb Zoodsma
NOAA Fisheries Southeast Region



Mid-Atlantic Region

- Area inclusive of south and east of Block Island Sound, Rhode Island to Port of Savannah, Georgia
- Located between known high use areas in NE and winter calving area in SE

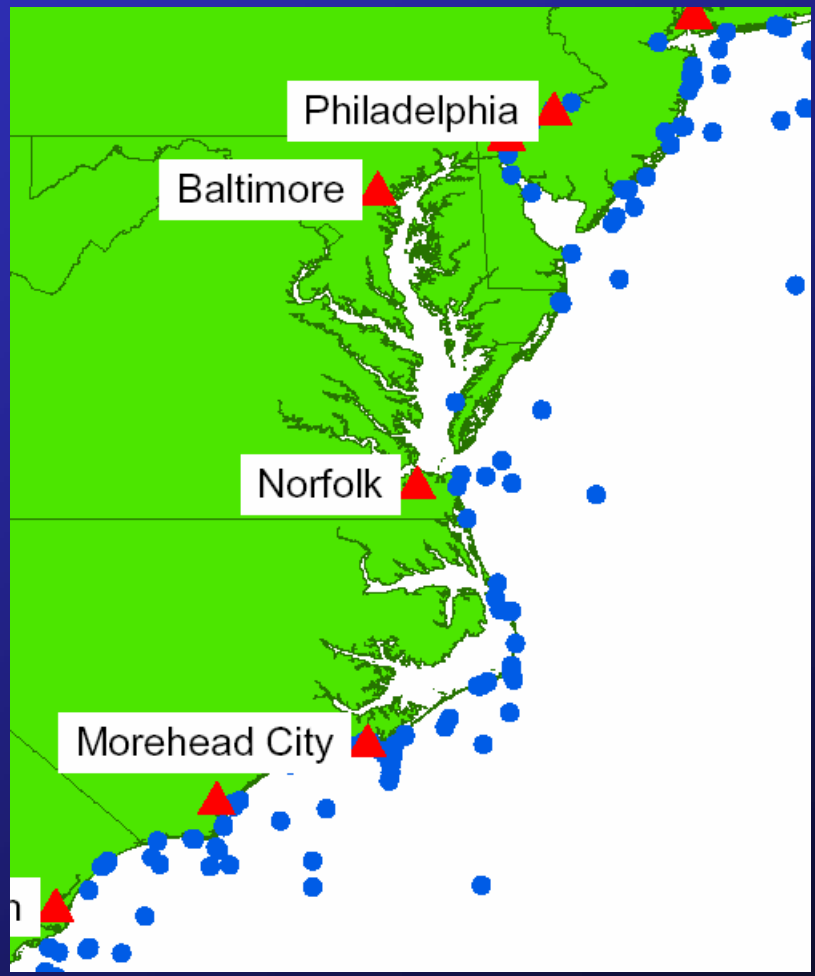


•Spatial Distribution of Sightings

•Generally observed in waters relatively close to shore

–94% of sightings within 30 nautical miles of shore

Summarized from Knowlton et al., unpub. report



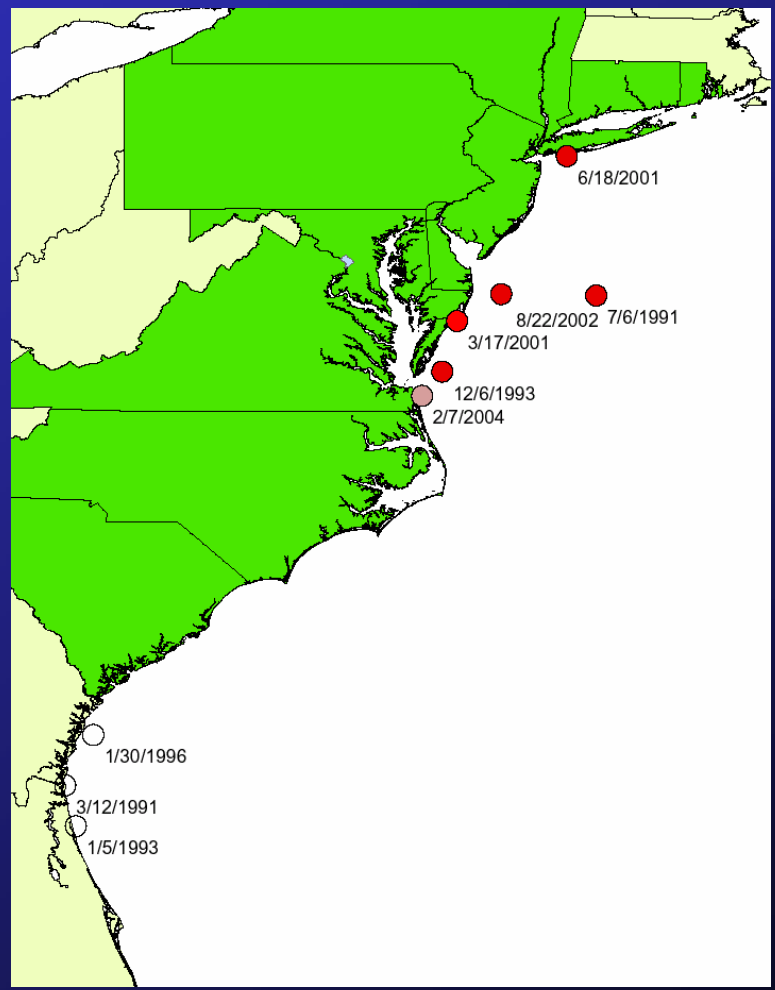
Data Source: URI, NOAA Fisheries

Seasonal Use of Mid-Atlantic Region

- Migratory Corridor for ***Pregnant Females*** moving from NE to SE in fall (Sept-Nov)
- Likely Dec-Mar Resident Use by Calving Females: Cape Fear, NC – SC
- Seasonal Use/Migratory Corridor by Other Population Segments
- Migratory Corridor for Mother/Calf pairs Departing Winter Calving Area in SE for NE Areas (March – May)

Mid-Atlantic Ship Strike Mortalities
1991 - 2002

- 5 of 14 confirmed ship strike mortalities were in the mid-Atlantic
- 3 ship strike mortalities to right whales occurred in last 3 years
- One in 2004?

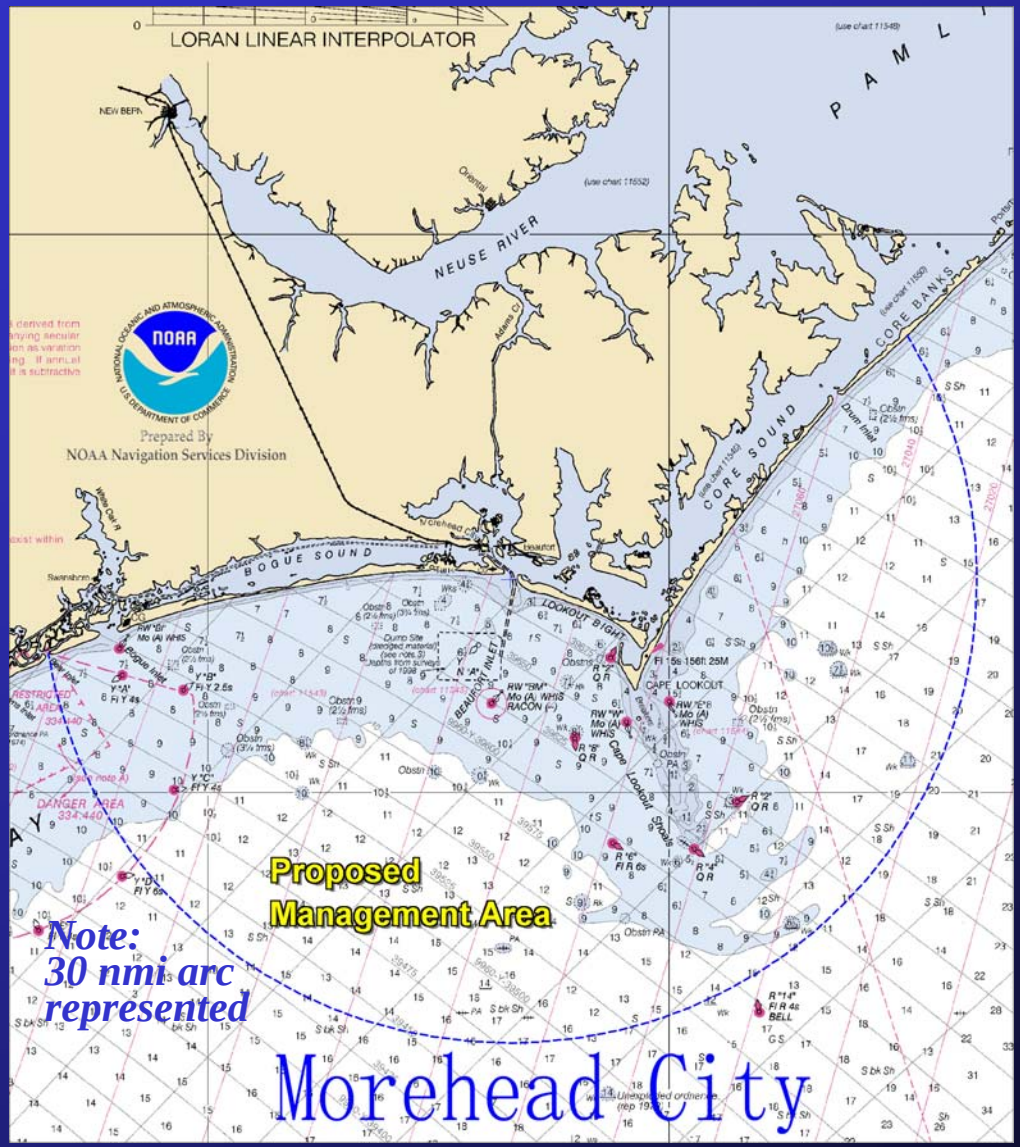


Morehead City Measures

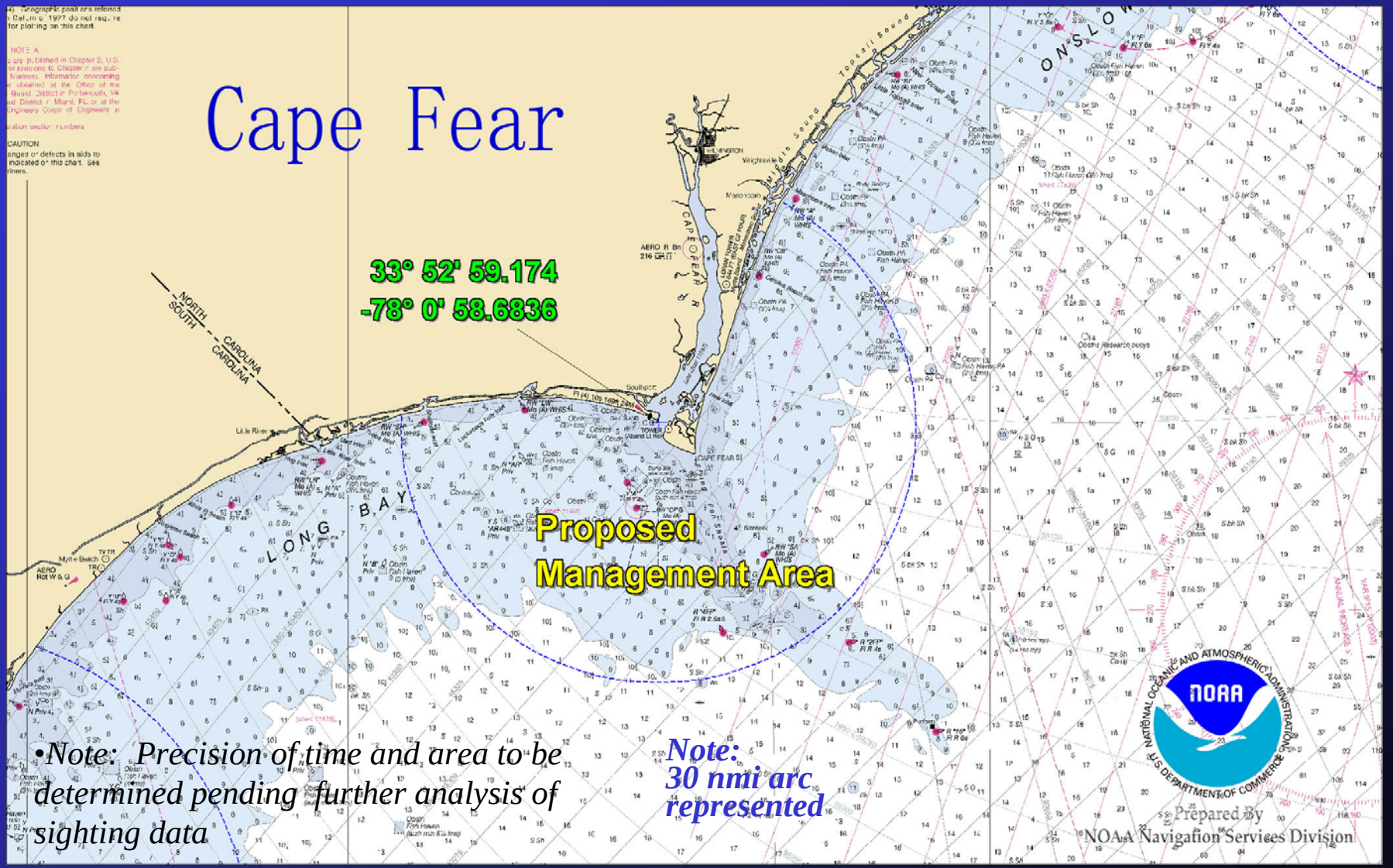
- Seasonal Management Area (SMA)
  - Area: 20-25nmi radius @ Inlet/COLREGS line
  - Measure: Speed restriction (10-14 knots)
  - Applicable period: Dec - April
- Dynamic Management applicable outside SMA timeframe and area
  - Distance, duration and speed subject to further analysis
- Non-sovereign Vessels ≮ 65’

Morehead City Seasonal Management Area

•*Note: Precision of time and area to be determined pending further analysis of sighting data*



Wilmington Seasonal Management Area



- *Note: Precision of time and area to be determined pending further analysis of sighting data*

Morehead City Increased Transit Time

Pilot Buoy @ 6.7 nmi

(Ships slow to 5-8 knots for pilot boarding)

	10 Knot Speed Limit			12 Knot Speed Limit		
	20 nmi	**25 nmi**	**30 nmi**	**20 nmi**	**25 nmi**	**30 nmi**
Dry Bulk Panamex	31	35	41	20.4	19.7	21.6
Container (~3000TEU)	51	62	77	40	47	57
Tug/Barge	21	20	22	0	0	0

Russell et al., 2003

Seasonality of Proposed Mid-Atlantic Operational Measures

PORT	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Providence/New London (Block Island)								
New York								
Philadelphia/Wilmington (Delaware Bay)								
Baltimore/Norfolk (Chesapeake)								
Morehead City, NC								
Wilmington, NC								
Georgetown								
Charleston								
Savannah								

Note: Precise dates to be determined pending further analysis and modeling

Dynamic Management

- Along the Atlantic seaboard within the EEZ
- Certain concentrations of right whales
- Outside Time or Area of SMA
- Precautionary area established for limited period of time
- Vessels must divert or restrict speed

Distance, duration and speed subject to further analysis

Proposed Operational Measure for MidAtlantic

- ~10-14 knot speed restriction ~20-30 nmi radii around Entrance/COLREGs
- ~4-5 months in duration
- Vessels ≥ 65’

Note: Precise size of area and timing to be determined pending further analysis of sighting data

Vessel Operating Concerns

- Measuring impacts (additional time) for vessels complying with proposed vessel operating restrictions

VESSEL TRAFFIC-MANAGEMENT SCENARIOS
BASED ON RECOMMENDED MEASURES
TO REDUCE SHIP STRIKES OF
NORTHERN RIGHT WHALES

A report submitted to the NMFS Northeast Implementation Team

Submitted by:

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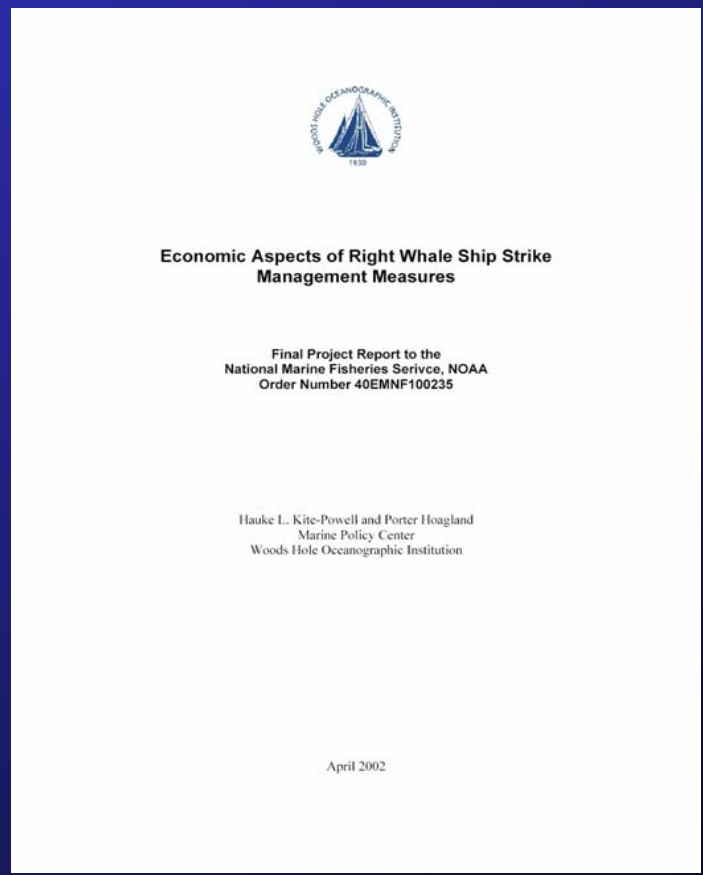
Economic Concerns

- Study: Economic Analysis
- Federal Regulations: Formal Economic Analysis



Economic Aspects of Right Whale Ship Strike Management Measures

Final Project Report to the
National Marine Fisheries Serivce, NOAA
Order Number 40EMNF100235

Hauke L. Kite-Powell and Porter Hoagland
Marine Policy Center
Woods Hole Oceanographic Institution

April 2002

Our Goals

- Explain Problem
- Explain Approach (Strategy)
- Initiate Dialog
- Industry Input